

What is claimed is:

1. A method for generating computer-based models of seats on a passenger compartment floor plate from a first document, the method comprising:  
receiving a first document defining a plurality of seat positions and seat identities  
5 associated with the seat positions;  
extracting dimensions according to seat identities;  
generating a model of the seats affixed with fasteners to the passenger compartment floor plate based upon the seat positions, the extracted dimensions, and seat identities; and  
10 simulating loads on the fasteners in accordance with an acceleration of a known magnitude and direction.
2. The method of Claim 1, wherein the first document includes a spreadsheet.
3. The method of Claim 1, wherein the first document includes an XML document.
4. The method of Claim 1, wherein generating of the model includes generating a  
15 graphic representation of the model.
5. The method of Claim 1, wherein simulating loads includes storing the loads in association with the acceleration.
6. The method of Claim 5, wherein storing the loads includes storing the loads in a second document.
- 20 7. The method of Claim 6, wherein the second document includes a spreadsheet.
8. The method of Claim 6, wherein second document includes an XML document.
9. The method of Claim 1, wherein the first document includes a LOPA.
10. The method of Claim 1, wherein the method includes accessing information stored at an addressable site on a network.
- 25 11. A computer program residing on a readable memory medium generating computer-based models of seats on a passenger compartment floor plate from a first document, the computer program comprising:

- a first computer program code for receiving a first document defining a plurality of seat positions and seat identities associated with the seat positions;  
a second computer program code for extracting dimensions according to seat identities;  
5 a third computer program code for generating a model of the seats affixed with fasteners to the passenger compartment floor plate based upon the seat positions, the extracted dimensions, and seat identities; and  
a fourth computer program code for simulating loads on the fasteners in accordance with an acceleration of a known magnitude and direction.
- 10 12. The computer program of Claim 11, wherein the first computer program code is configured to receive a spreadsheet.
13. The computer program of Claim 11, wherein the first computer program code is configured to receive an XML document.
14. The computer program of Claim 11, wherein the third computer program code is configured to generate a graphic representation of the model.
- 15 15. The computer program of Claim 11, wherein the third computer program code is configured to store loads in association with the acceleration.
16. The computer program of Claim 15, wherein the third computer program code stores the loads in a second document.
- 20 17. The computer program of Claim 16, wherein the second document includes a spreadsheet.
18. The computer program of Claim 16, wherein the second document includes an XML document.
19. The computer program of Claim 11, wherein the first computer program code is configured to receive a LOPA.
- 25 20. The computer program of Claim 11, wherein the first computer program code includes means for accessing information stored at an addressable site on a network.
21. A system for generating computer-based models of seats on a passenger compartment floor plate from a first document, the system comprising:



5 a first component for receiving a first document defining a plurality of seat  
positions and seat identities associated with the seat positions;  
a second component for extracting dimensions according to seat identities;  
a third component for generating a model of the seats affixed with fasteners to the  
passenger compartment floor plate based upon the seat positions, the extracted  
dimensions, and seat identities; and  
a fourth component for simulating loads on the fasteners in accordance with an  
acceleration of a known magnitude and direction.

10 22. The system of Claim 21, wherein the first component is configured to receive a  
spreadsheet.

23. The system of Claim 21, wherein the first component is configured to receive an  
XML document.

24. The system of Claim 21, wherein the third component is configured to generate a  
graphic representation of the model.

15 25. The system of Claim 21, wherein the third component is configured to store loads  
in association with the acceleration.

26. The system of Claim 25, wherein the third component stores the loads in a second  
document.

27. The system of Claim 26, wherein the second document includes a spreadsheet.

20 28. The system of Claim 26, wherein the second document includes an XML document.

29. The system of Claim 21, wherein the first component is configured to receive a  
LOPA.

30. The system of Claim 21, wherein the first component is configured to access  
information stored at an addressable site on a network.

25



25315

PATENT TRADEMARK OFFICE